

## **Introduction:**

The United States Environmental Protection Agency (EOA), Region III has over 100 prisons which have been found to commonly violate Resource Conservation and Recovery Act Section-C (RCRA-C), Spill Prevention Control and Countermeasure (SPCC) and other environmental regulations. The Office of Enforcement, Compliance and Environmental Justice (OECEJ) has targeted overcrowded, older facilities with industrial shops suspected of having harmful environmental impact. The Integrated Prison Initiative combined outreach, compliance assistance, inspections and enforcement actions to improve the understanding of environmental requirements and compliance behavior of correctional facilities. Education and outreach activities included presentations at prison conferences, articles in news publications and internet resources focused on correctional facilities. Compliance assistance was targeted to Virginia facilities in the form of an extended self-disclosure opportunity. Inspections were conducted at seven correctional facilities throughout the region and all seven inspections resulted in enforcement action by OECEJ.

This survey project was developed to measure the success of OECEJ's Integrated Prison Initiative. The goals of the prison initiative were to improve prisons' understanding of federal environmental regulations, specifically SPCC and RCRA-C, as well as improve compliance behavior of correctional facility personnel. This survey project will answer the three following research questions:

- I. Did the education, outreach and compliance assistance reach its targeted audience?
- II. Did the integrated strategy result in increased understanding of federal environmental requirements?
- III. Did the integrated strategy result in positive compliance behaviors being adopted at Region III correctional facilities?

### **Integrated Prison Initiative**

Based on public tips, the OECEJ inspected Lorton Correctional Facility in Virginia and Graterford Prison in Pennsylvania. These initial inspections both found RCRA-C and SPCC violations. Lorton also had a Underground Storage Tank (UST) violation and Graterford had several Clean Water Act (CWA) violations at its wastewater treatment plant. The results of these two inspections caused OECEJ to consider targeting correctional facilities for an integrated strategy that would combine enforcement and compliance assistance.

Initial research indicated that the prison sector contained facilities that were largely variable in size, age, inmate population and types of industry. For targeting purposes, OECEJ wanted to examine the most potentially polluting prisons. These prisons were large, old, over-crowded and ran various industrial shops (*see Table 1*).

Table 1. Region III Prison Characteristics

Largest Prison	6,800 inmate population, over 3,000 acres
Oldest Prison	opened in 1882
Most Over-Crowded	170% capacity
Most Industry	15 different types of industrial shops

The Integrated Prison Initiative was designed by OECEJ staff and a sector strategy report was prepared by Environmental Engineer, Chris Thomas to begin in Fiscal Year 2001. With the goal of improving the environmental compliance of the prison sector, the initiative targeted 142 facilities in Region III with a combination of education and outreach, compliance assistance, multimedia inspections and enforcement actions.

1. Education and Outreach:

The education and outreach component of the prison initiative consisted of providing information at prisons conferences, in news publications and on the internet. Garth Connor, the prison initiative team leader, presented reviews of RCRA-C and SPCC regulations at prison conferences in Washington D.C, Dover DE and Denver, CO as well as manned a booth at the Dover conference where interested correctional staff could ask more specific questions. EPA staff wrote two articles about the initiative that appeared in *Corrections Forum Magazine*<sup>1</sup> and the *National Environmental Enforcement Journal*<sup>2</sup>. Compliance assistance information specific to correctional facilities was added to the Region III web page at [http://www.epa.gov/reg3ecej/compliance\\_assistance/prisons.htm](http://www.epa.gov/reg3ecej/compliance_assistance/prisons.htm).

2. Compliance Assistance:

An extended self-disclosure opportunity was offered to Virginia facilities. Letters from OECEJ describing the opportunity were sent to the wardens of the Virginia prisons. The letter, which was sent to over 40 facilities, described an opportunity for exemption from fines if environmental problems were disclosed within double the standard self-disclosure time-frame and for EPA assistance in remediation of any disclosed violations.

3. Multimedia Inspections:

Seven multimedia inspections have been performed by OECEJ inspectors throughout the region. Facilities were chosen for inspection based on the targeting

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<sup>1</sup>Fairchild, Samantha, Environmental Compliance, *Corrections Forum Magazine*, volume 11 Number 1, November/December 2002

<sup>2</sup>Connor, Garth, An Investigation and Analysis of the Environmental Problems at Prisons, *National Environmental Enforcement Journal*, volume 18 number 4, May 2003

criteria of size, age, inmate population and industry. RCRA-C and SPCC problems were found at all inspected facilities where enforcement actions were taken. (see Table 2).

4. Enforcement Actions:

So far, enforcement actions have been taken against six inspected facilities. Penalties have varied based on the severity of the violations and other mitigating factors (see Table 2).

Table 2. Enforcement Actions as a Result of the Prison Initiative

Prison	Violations Found	Type of Prison	Assessed Penalty
Lorton Correctional Facility Lorton, Virginia	RCRA, SPCC and UST	Federal	\$163,000 Case split with VA DEQ and settled
Graterford State Correctional Institution Graterford, Pennsylvania	RCRA, SPCC and CWA	State	\$92,000 Case settled
Maryland House of Corrections Jessup, Maryland	RCRA and SPCC	State	\$176,680 fine and SEP Case settled
Philadelphia House of Corrections Philadelphia, Pennsylvania	RCRA, SPCC and CAA	Local	\$64,000 SEP included in settlement
Delaware Correctional Center Smyrna, Delaware	RCRA, SPCC and CAA	State	\$96,000 in negotiation
Mt. Olive Correctional Complex Mt. Olive, West Virginia	RCRA, SPCC	State	\$10,560
Greensville Correctional Center Jarrett, Virginia	Under review	State	

## Survey Findings

This survey was designed to address three questions:

- I. Was the target audience aware of the initiative ?
- II. Did the initiative increase the target audience's understanding of federal environmental requirements?
- III. Did the initiative have a positive impact on the target audience's compliance behavior?

The results of the survey indicate that the correctional facility sector has greater access to the internet than previously believed and the information provided on the EPA compliance assistance

internet sites was helpful in improving understanding of federal environmental requirements. Awareness seems to have been increased over 50% for both oil spill prevention requirements and hazardous waste handling and disposal requirements mostly due to word of mouth and Department of Corrections (DOC) policy changes. Over 90% of respondents indicated some positive behavior change as a result of the Integrated Prison Initiative. Due to the hierarchical structure of the DOC, policy changes at the management level resulted in behavioral changes at the facility level. West Virginia DOC has changed personnel job descriptions to include environmental compliance activities, Virginia and Pennsylvania facilities have developed oil-spill prevention plans, Maryland DOC is using new computer software to improve their record keeping and Delaware has increased their number of DOC inspections forcing individual facilities to self-inspect more often. These survey results indicate that the integrated prison initiative had measurable effect in each of its three target areas, exposure, increased understanding and positive behavioral change.

## Methods:

### Design

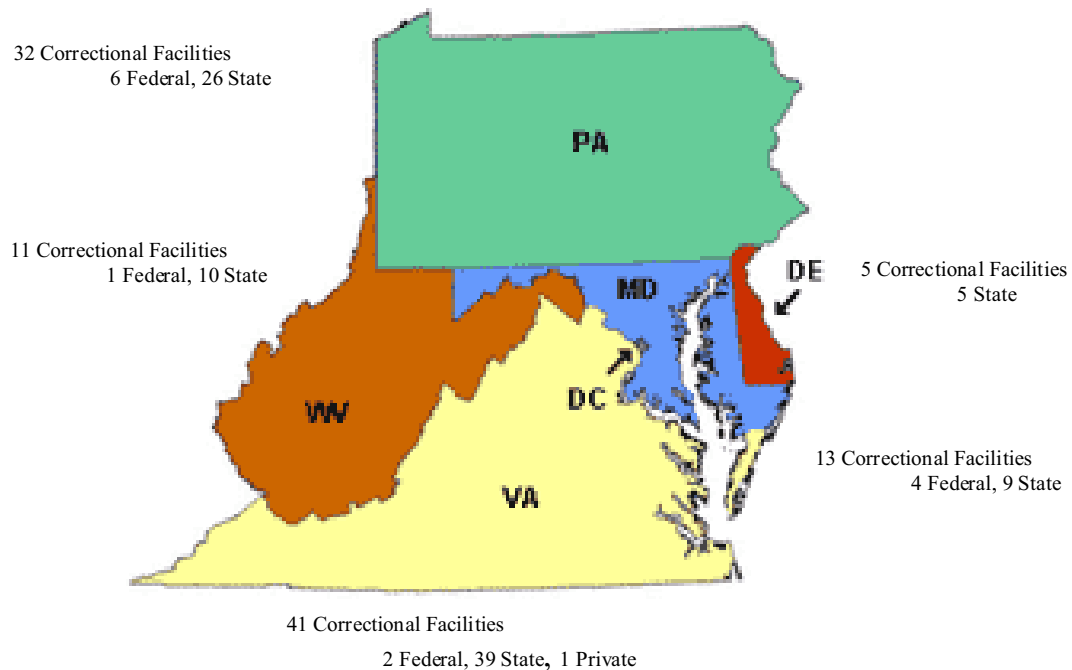
#### Survey Design:

The original survey instrument was designed by Janet Viniski of OECEJ. This survey consisted of 27 multiple choice questions focused on exposure to outreach and changes in comprehension or behavior and 2 opened-ended questions, targeted to Virginia facilities, concerning the self-disclosure policy and suggestions for outreach. The final version of the survey administered included additional questions focusing on general conceptions of correctional facility environmental performance and impact of publicity. In an attempt to answer specific research questions, the survey was designed to move from background information to familiarity with outreach activities, to the cognitive and behavior effects of the prison initiative. A final version of the survey administered can be found in *Appendix A*.

#### Sample Design:

This survey focused on prisons, as defined as places of lawful confinement of people previously convicted of crimes. Jails, holding or detention centers and work-release programs were not included in the population. The sample for this study included all prisons located in EPA Region III (see *Picture 1*). The targeted respondent was the prison staff member responsible for the environmental compliance of the facility.

Picture 1. Location of Region III Correctional Facilities



One hundred and three correctional facilities, which does not include any jails or short-term lock-ups, were identified in the Region III states of Delaware, Maryland, Pennsylvania, Virginia and West Virginia. The District of Columbia does not house any prison facilities. These correctional facilities ranged in size from 50 inmates to over 6500. Some facilities had extensive correctional enterprises facilities (industrial shops) while other institutions had no industry and only generated medical waste. Safety officers were the target respondent, since they are generally responsible for environmental compliance at most of these institutions. Occasionally, facilities would not have safety officers. In these instances, the target respondents was another prison staff member like a warden, assistant warden or facilities manager who would claim responsibility for environmental programs at that particular facility.

In order to obtain a statistically significant sample, able to produce a 90% confidence interval, 40 responses were needed. In order to obtain a 95% confidence interval 82 responses were needed<sup>3</sup>. The sample size for this survey was made as large as possible to increase the statistical significance of the findings so multiple attempts were made to contact each of the 103 prisons in the region. The resulting sample was a census and therefore not randomly selected. This survey used systematic sampling<sup>4</sup> where contact was attempted with all members of the population.

## **Implementation**

### **Period of Study:**

This survey was commissioned through the National Network for Environmental Management Studies Fellowship Program by the Environmental Protection Agency, Region III, Office of Enforcement, Compliance and Environmental Justice (OECEJ). All research was conducted between May 19 and August 8, 2003. Due to the short time frame of the study, the geographical dispersion of Region III correctional facilities and the desire for a high response rate, telephone surveys were conducted.

### **Pretesting:**

Background information from the original OECEJ prison initiative and internet research was used to provide prison sector information. Pretesting of the survey instrument was accomplished through review by OECEJ staff and 5 guided interviews conducted with Commonwealth of Virginia correctional facilities.

### **Survey Procedures:**

Survey results were obtained through telephone calls to each correctional facility in Region III. The operator or security guard who answered the phone was asked to identify the prison staff member in charge of environmental compliance. This question was repeated until a prison staff

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<sup>3</sup>Office of Enforcement and Compliance Assurance, Guide for Measuring Compliance Assistance Outcomes, United States Environmental Protection Agency, June 2002, page 59

<sup>4</sup>Parker, Richard and Rea, Louis, Designing and Conducting Survey Research: A Comprehensive Guide, Jossey-Bas, San Francisco, 1997, page 135

member claimed responsibility for the facilities environmental programs. The identified staff member would be read an introduction to the survey describing its purpose, voluntary nature and confidentiality. For a script of the introductory statement, see *Appendix B*. Upon completion of the introduction, potential respondents were asked if they had 10 minutes to participate in the survey. Affirmative verbal responses were indications of consent. The survey questions were then asked to the respondent beginning with their general impressions of correctional facility performance on compliance with environmental regulations. Surveys were conducted as guided interviews<sup>5</sup> so questions were not necessarily answered in the order they appear on the printed survey and unsolicited anecdotes were always recorded.

### **Analysis**

Contact was attempted with every facility in Region III but not all attempted contacts were successful. Due to inadequate contact information the final number of facilities in the sample frame was 91. The final number of survey participants was 70 and this sample provides a response rate of 77%. This sample size is statistically significant and provides a confidence interval of roughly 93% for all results. Responses were coded into an Excel spreadsheet that can be found in *Appendix D*, along with a coded survey key, in *Appendix C*. Excel, S-Plus and Corporate Pulse software were used to analyze the coded data.

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<sup>5</sup>Parker, Richard and Rea, Louis, *Designing and Conducting Survey Research: A Comprehensive Guide*, Jossey-Bas, San Francisco, 1997

## Error:

### Small Sample Size

The final sample for this survey was incomplete, which effects the significance of its results. It is possible that prisons were excluded from the original sample because the number of prisons identified for this survey differ from the number identified in the original integrated strategy proposal. Of the 101 prisons identified for this survey, contact was not successful at 10 facilities due to inadequate contact information. These factors contributed to the small sample size and could possibly be rectified in further research.

### Number of Facilities in Each State

States across Region III have a large disparity in the number of correctional facilities housed, with Virginia having 41 facilities and Delaware having only 5. The response rates differed greatly from state to state with Pennsylvania having the lowest response rate at 52% and Virginia having the highest at 83%. The number of facilities in each state greatly effect the response rate and the resulting analysis (*see Table 3*).

Table 3. Survey Response Rate by State

State	Number of Facilities	Survey Response Rate
Delaware	5	80%
Maryland	9	73%
Pennsylvania	32	52%
Virginia	41	82%
West Virginia	12	62%

### Facility Structure

The facilities surveyed were Federal, State and privately-managed prisons. Distinctions between management types were not made in this analysis. The structure of each type of prison may have an effect on their responses to various questions and should be considered in further research.

### Pennsylvania Department of Corrections Late Approval

The Pennsylvania Department of Corrections was contacted late in the survey process and did not obtain approval for administration of the survey to its facilities until July 30, 2003. This delay resulted in attempted contact with Pennsylvania facilities only occurring once and may be responsible for the low response rate for the state (52%). The analysis for Pennsylvania is



incomplete and may not be representative of the entire state.

#### Respondent Location

When contact was attempted at each prison, attempts were made to locate a staff member who would claim responsibility for the environmental compliance of the facility. There is no way to ensure that the management of the facility would have identified this same individual or that more than one staff member is responsible for environmental compliance at a particular facility. The self-identification of respondents may not have produced the most representative sample.

#### Truthful Reporting

As with all human subjects research, there is no way to ensure responses were accurate when completing the survey. While steps like repeating variations of the same question and ensuring confidentiality were taken, the results of this survey are what was reported to the researcher and not verified fact.

## Findings:

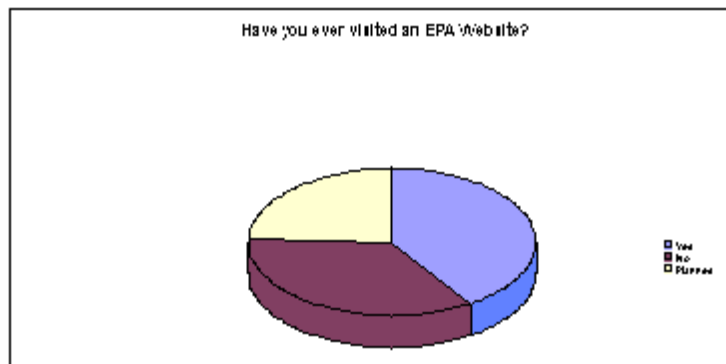
This survey was designed to examine three components of Region III's integrated prison initiative; exposure, effect on understanding of environmental regulations and positive behavioral changes. Telephone interviews were conducted with 70 federal, state and privately managed prisons in Delaware, Maryland, Pennsylvania, Virginia and West Virginia. The District of Columbia does not house any prison facilities and was not included in this study. Analysis of responses shows limited direct exposure to EPA outreach but a high rate of secondary exposure to the prison initiative. The initiative resulted in a 55% increase in comprehension of federal environmental requirements and a 92% reported increase in environmental beneficial behavior.

### **Exposure to Integrated Prison Initiative**

Survey questions #5-#12 concentrated on direct and indirect exposure to the integrated prison initiative. Question 5 asked if the respondent was aware of any outreach by the EPA towards correctional facilities. Only 51% of survey respondents were aware that the EPA was taking a closer look at prisons' environmental compliance. The majority of respondents had not seen any EPA presentation or news article. Only eight respondents had been to correctional facilities conference where the EPA made a presentation. The majority of respondents did not staff high ranking positions in the DOC and were not readily funded to attend conferences. 19% of respondents had seen newspaper articles about EPA enforcement action against prisons but no one surveyed had seen the articles by OECEJ staff. *Corrections Today*, *Corrections USA*, *Correctional News* and *Occupational Hazardous* were widely read. Respondents indicated that the magazines requiring paid subscriptions were not always accessible but the free publications, like *Compliance* and *Occupational Safety and Health Administrations's* (OSHA) magazine, were widely available.

At the start of the integrated initiative, it was believed that correctional facility staff did not have great access to internet resources. Respondents were asked about their internet access and practices in survey questions #31-#35. 42% of respondents had visited either the general EPA website, the national compliance assistance page or the Region III compliance assistance page directed towards prisons. Another 24% of respondents planned to access one of the three sites now that they were aware of their specific internet addresses (*see Graph 1*). Of the respondents who answered that they had never accessed EPA internet sites, the majority were not able to use the internet at work because their offices were located in secure areas of the prison facility. These results indicate the survey's target population was only directly reached by education and outreach provided on the EPA web pages.

Graph 1: Exposure to Internet Resources



There was a strong indication that a large amount of awareness of the integrated prison initiative was generated indirectly by conversation within and between facilities. 66% of respondents had participated in discussion about the EPA's focus on correctional facilities. It is impossible to measure if these discussion were generated by education and outreach, compliance assistance, inspections or enforcement actions. The measurable outcome is of the integrated strategy which seems to have been successful at alerting prison staff to EPA's interest in their environmental compliance.

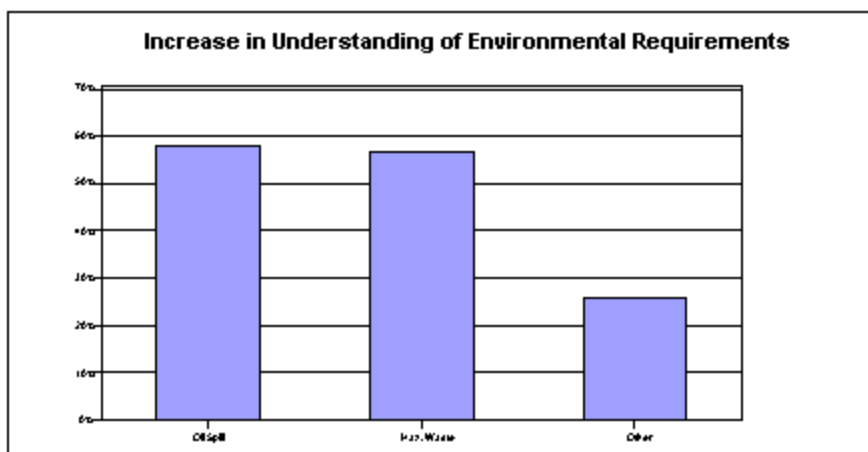
#### Virginia Self-Disclosure Compliance Assistance

An extended self-disclosure opportunity was offered to all Virginia facilities. 68% of Virginia respondents remembered receiving the letter describing the opportunity and 60% of those respondents correctly understood the opportunity yet only one federal facility in Virginia chose to self-disclose. Survey respondents indicated that the Virginia Department of Environmental Protection (VA DEP) received a grant to conduct fifteen compliance assistance visits. The Virginia DOC chose to allow VA DEP to visit the facilities with industry that may have been targeted by EPA. DOC was unclear that choosing to be inspected by VA DEQ was not the identical program offered by EPA. The direct cause of this confusion remains unclear.

#### Effect on Comprehension

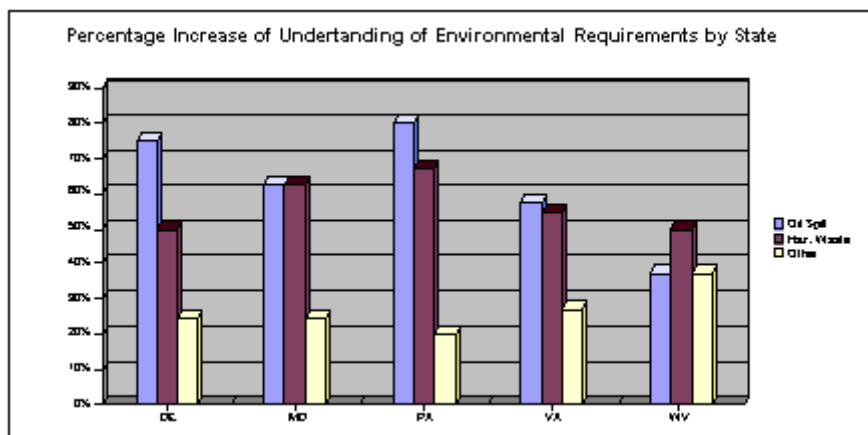
Initial inspections of correctional facilities indicated that RCRA-C and SPCC federal requirements proved to be the most commonly violated. Survey questions #16-18 focused on the effect the prison initiative had on improving understanding of these environmental requirements. Compiled data indicated that 58% of respondents reported an increase in understanding of oil spill prevention requirements, 57% of respondents indicated an increase in understanding of hazardous waste handling and disposal requirements and 26% of respondents indicated they had become more aware of other federal regulations as well (see Graph 2).

Graph 2: Increase in Comprehension



Analysis of survey data indicated that various state agencies or DOCs may have had an overriding influence on the federal requirements that received the most attention. Since policy decisions for a correctional facility are made at the management level, DOC for one state may have focused on SPCC requirements while another may have focused on RCRA-C regulations. Graph 3 shows a breakdown on increased awareness reported by state. Delaware and Pennsylvania showed over 80% increased in understanding of oil spill prevention requirements while Pennsylvania and Maryland showed the greatest improvements in understanding hazardous waste handling and disposal requirements.

Graph 3: Increase in Comprehension by State



### **Effect on Behavior**

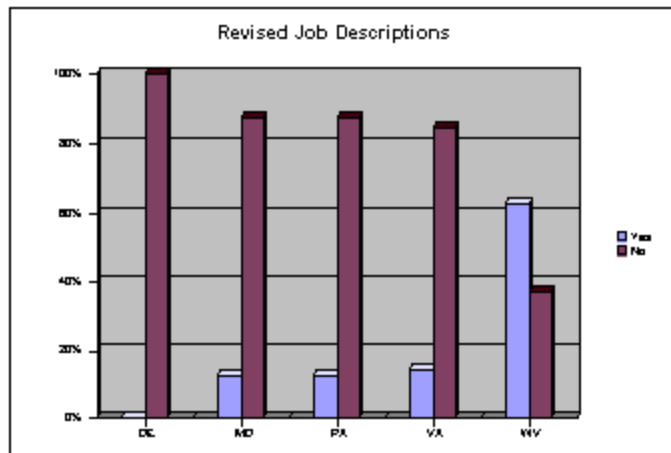
The integrated prison initiative used compliance assistance, education and outreach, inspections and enforcement actions to ultimately improve the environmental performance of the sector. 92% of survey respondents claimed to have changed at least one behavior since the beginning of the

integrated prison initiative. The majority of facilities had changed between four and five of the nine behaviors about which they were questioned. Survey questions #21-#30 were designed to examine specific behaviors that were found to be neglected, sector wide, during initial inspections. These behaviors included increasing the number of self-inspections, revised job descriptions to include environmental compliance, improved labeling of hazardous waste, improved record keeping, changing material to reduce environmental impact, application for state or EPA permits, development of an oil spill prevention plan, training on hazardous waste and reduction in waste materials produced.

#### Revised Job Description of Facility Personnel

Graph 4

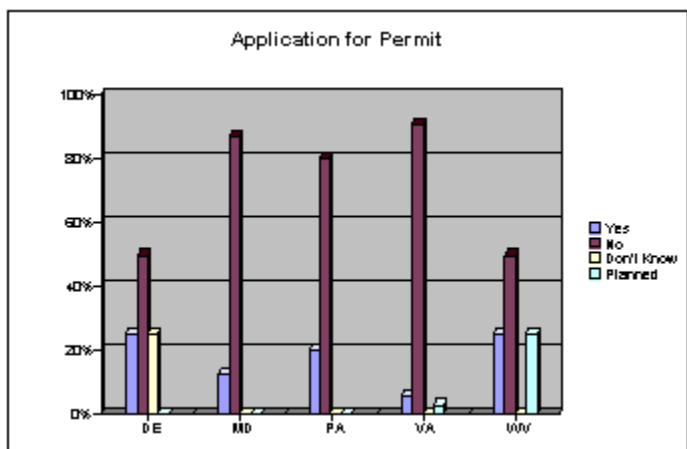
63% of West Virginia respondents claimed to have revised a staff members job description to include environmental compliance as an assigned duty. West Virginia DOC is attempting to obtain American Correction Association (ACA) accreditation for all it's state run facilities. In order to receive this accreditation, environmental compliance must be included in a personnel job description. All other states predominately answered that they had not changed any personnel job descriptions in the last two years. Some claimed that environmental management was already included in the job description of a safety officer but most respondents stated that they had responsibility for environmental compliance as part of the "and other duties as assigned" clause in their job descriptions.



#### Increased Application for State or EPA permits

Graph 5

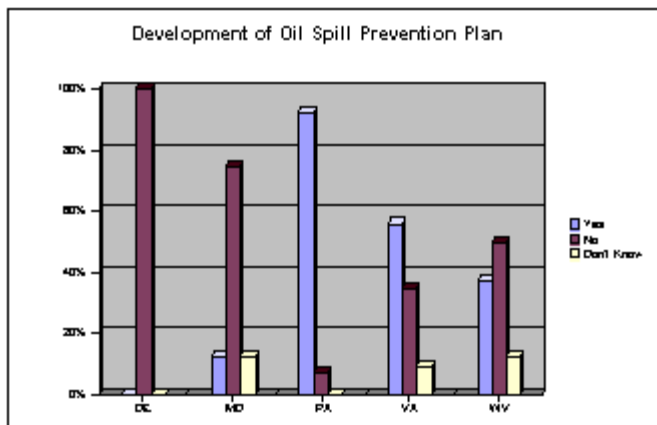
Across all states, the majority of respondents believed they were adequately permitted and had not therefore applied for any additional state or EPA permits in the past two years. Initial prison inspections indicated that many permits were incorrect and procedures outlined in correct permits were not being followed. It appears that larger permits for facilities, like wastewater treatment plants, were being followed correctly but smaller permits were not. Application for permits does not appear to have been effected by the Integrated Prison Initiative.



### Development of an Oil Spill Prevention Plan

Graph 6

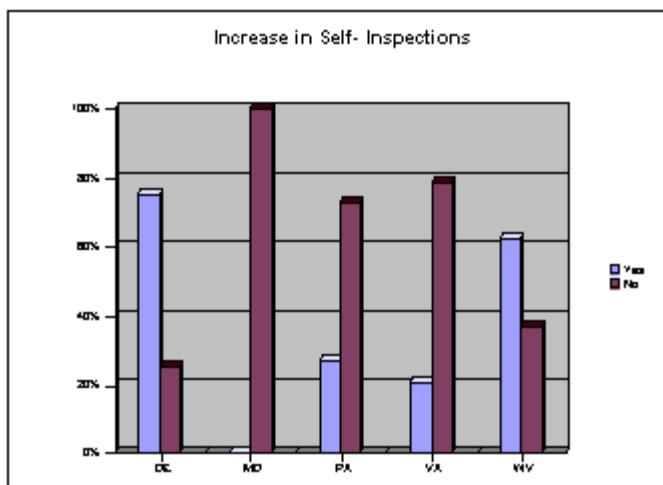
Both Pennsylvania and Virginia Department of Corrections hired outside consulting firms to develop oil spill prevention plans for their facilities. Pennsylvania hired the consulting firm to create a plan for each facility but the consulting firm in Virginia was only hired to produce plans for the Virginia State facilities with large industrial shops. West Virginia correctional facilities have begun developing oil spill prevention plans but this is not being done statewide. It seems that development of an oil spill prevention plan in West Virginia is up to the discretion of the safety officer or warden at each facility. Maryland and Delaware did not seem to be making a centralized effort to develop oil spill prevention plans.



### Increase in the Number of Facility Self-Inspections

Graph 7

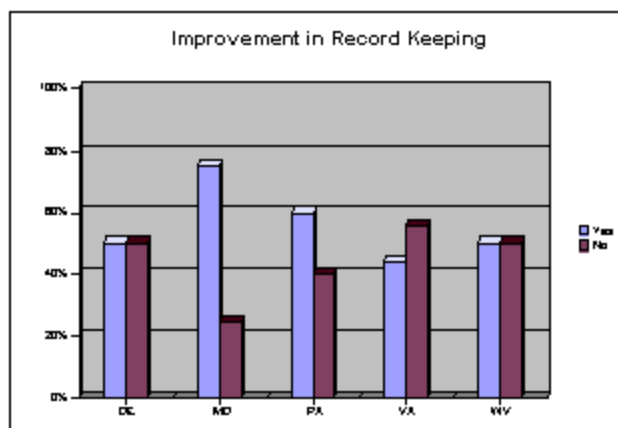
75% of respondents from Delaware claim to have increased the number of self inspections performed at correctional facilities. Delaware DOC has a state inspector that visits each correctional facility annually and Delaware Department of Natural Resources and Environmental Control (DNREC) has also begun to perform annual inspections of prisons. 63% of West Virginia respondents reported an increase in the number of self-inspections performed in the past two years. West Virginia DOC has recently begun quarterly inspections of all its state facilities. In both instances, increasing the number of outside inspection appears to greatly effect the number of self-inspections.



### Improvement in Record Keeping

Graph 8

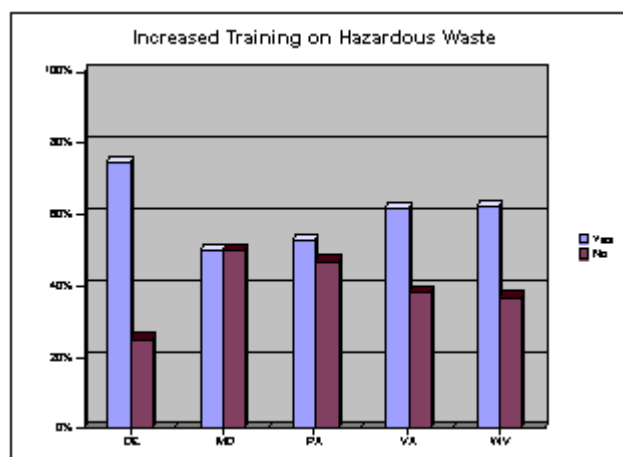
Maryland respondents report that they have improved their record keeping since the beginning of the integrated prison initiative in about 75% of the completed surveys. Many respondents indicated that Maryland DOC had instituted a new tracking system for Material Safety Data Sheets (MSDS). Pennsylvania DOC indicated that they had recently improved tracking MSDS as well by purchasing new CORBIS software for improved record keeping. Delaware, Virginia and West Virginia provided mixed answers when asked if they had improved their record keeping practices within the last two years. It seemed that new safety officers would frequently answer that they had made record keeping improvements while tenured safety officers claimed their current systems were adequate.



### Increase Training on Handling Hazardous Waste

Graph 9

The information collected from this survey indicated that there was no standard training requirement for safety officers on handling hazardous waste. Some safety officers had been trained by DOC, some had previous training in other sectors and a few had been part of hazardous materials task forces prior to becoming safety officers. Many safety officers had been transferred to the position from other areas in the prison and were not familiar with many environmental requirements. The main concern for many safety officers was environmental health and safety as it pertained to staff and inmates. Many more respondents were familiar with OSHA standards than with EPA standards. Responses to this survey question were quite variable and it appeared that any training on handling hazardous waste needed to be instigated by the safety officer and was not standard sector practice.

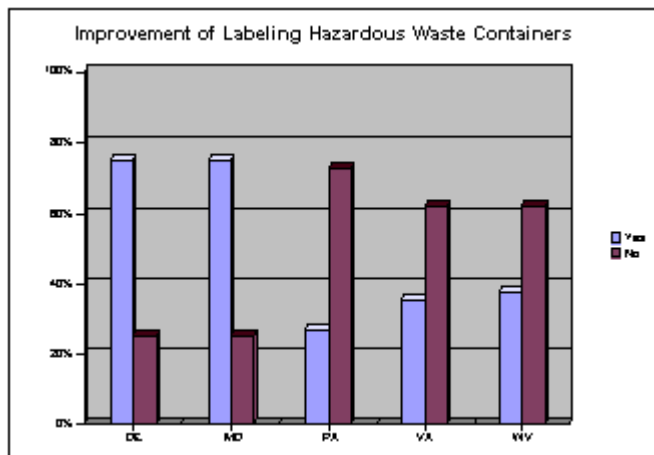


### Improved Labeling of Hazardous Waste

Graph 10

All inspected prisons in Region III showed problems in complying with RCRA-C. The most common problems were unlabeled or incorrectly labeled drums of hazardous waste. The inspection team leader has yet to see a hazardous waste drum at a prison with an accumulation start date. Delaware and Maryland respondents both indicated in 75% of the surveys collected that they had improved the labeling of their hazardous waste. Most respondents from these two states clearly understood that labeling has not been done correctly in the past and were making an effort to improve this practice.

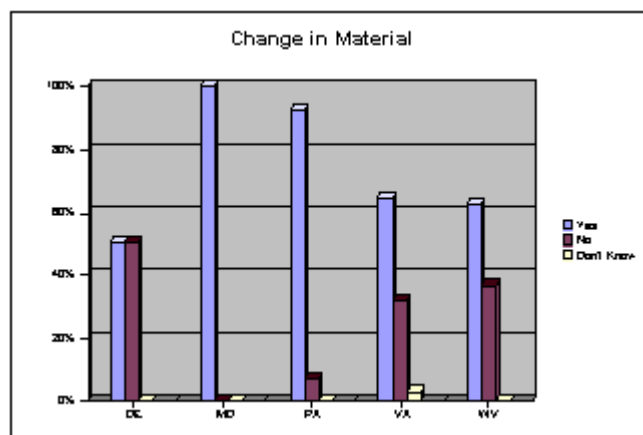
Survey respondents who indicated that they had not improved their labeling practices, believe that they were currently and had always been labeling hazardous waste correctly.



### Change in Material to Reduce Environmental Impact

Graph 11

Results indicate that safety officers can directly effect the material purchased by a correctional facility. The majority of survey respondents indicated that they were now purchasing materials that were less harmful to the environment. Most cleaning products and material used in industrial shops come in contract with inmates. Many survey respondents were concerned with the safety of inmates before the environment, but as a result of protecting prisoners, were buying less environmentally hazardous cleaning and industrial products. It was not clear that the integrated prison initiative was a factor in materials purchasing decisions.

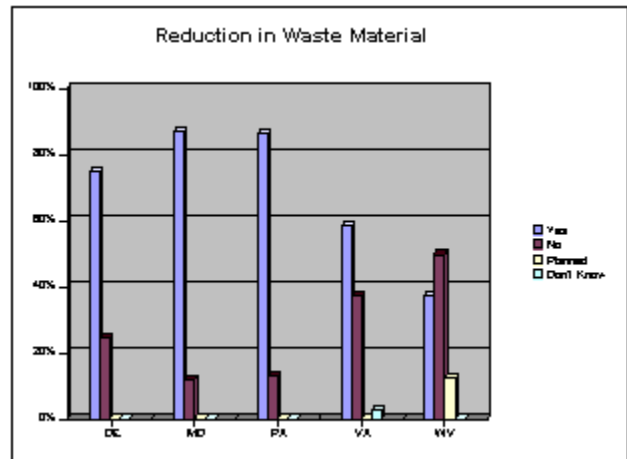




### Change in Amount of Waste Material Produced

Graph 12

All survey respondents claimed to have been recycling paper, plastic and aluminum in response to DOC management policies that mandated recycling programs. Respondents who indicated they had reduced their production of waste material did not indicate that it was in response to the EPA initiative. Respondents who indicated that they had not reduced their amount of waste material claimed to have recycling program in place before the integrated prison initiative began. A few facilities indicated that they had begun recycling batteries, fluorescent light bulbs and oil.



## Implications:

### **Future Outreach Suggestions from Survey Respondents**

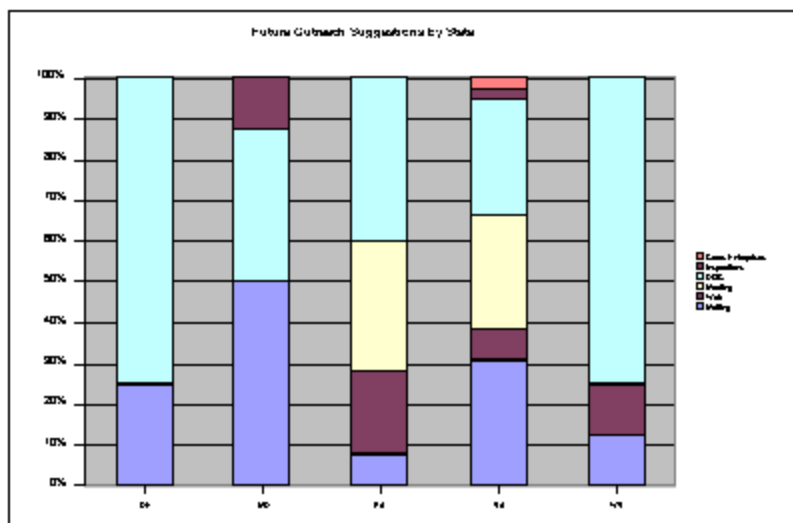
The last question asked of all survey respondents was how to improve EPA outreach to their sector. The question was open ended and survey responses were grouped into six categories. 40% indicated that the prison sector is constructed in a hierarchical manner. Any outreach efforts need to be coordinated through central management offices and then disseminated down through the appropriate chain of command. 23% of respondents indicated that they would benefit from informational mailings. OSHA provides a newsletter that many respondents thought was helpful and could be used as a model for other mailings. 23% of surveyed correctional staff felt that they had adequate resources to find out about the federal environmental regulations but needed more direct assistance or instruction in how to comply with these regulations. These respondents would like an EPA representative to come to the DOC safety meeting in order to be able to answer direct questions. 12% of respondents are satisfied with the compliance assistance information posted on the EPA web sites and would also like email updates and tips as a form of compliance assistance. 2% of respondents indicated that Correctional Enterprises, the division of the corrections sector responsible for the industrial shops, should be targeted and safety officers should only be responsible for inmate facilities. 1% of respondents indicated that compliance assistance inspections would best increase understanding and improve environmental compliance (see Table 4).

Table 4. Future Outreach Suggestions

Through DOC	40%
Informational Mailings	23%
Safety Meetings	23%
Internet Resources	12%
Correctional Enterprises	2%
Inspections	1%

The management of correctional facility appeared to differ greatly. Virginia DOC does not operate the same way as the Delaware DOC. To better meet the needs of the sector, it is important to take a closer look at these future outreach suggestions. *Graph 13* shows a breakdown of future compliance assistance suggestions by state.

Graph 13: Outreach Suggestions by State



Both Delaware and West Virginia respondents indicated that any successful outreach would have to come through the chain of command at the DOC. Pennsylvania also indicated that the DOC would be a good place to address outreach efforts but Pennsylvania has annual safety officers meetings which might be a more appropriate place for an EPA inspector to answer direct compliance questions. Virginia has quarterly safety meetings and respondents indicated that these meeting, the DOC or an informational mailing directly to safety officers many be effective in reaching the target audience. Respondents from Maryland indicated that the DOC and informational mailing would be effective outreach for their safety officers.

The prison sector is very hierarchical and individual facilities cannot institute policy changes. Attempts to contact, provide information or institute widespread changes need to follow the correct chain of command. This does not mean that individual facilities do not need to make improvements. Targeting of future outreach should be directed towards the levels of management that can effect the type of change desired.

### **Recommendations for Future Components of Integrated Strategy**

The integrated strategy has been effective in a number of ways but continued EPA action would be beneficial. The following are recommendations for continued action generated from DOC, EPA staff and survey research results.

- Continue to conduct inspections
- Contact more widely circulated or popular publications
- Send EPA inspectors to Virginia and Pennsylvania safety meetings
- Provide a informational mailing or email campaign directed to safety officers
- Provide industry consultants with information on environmental regulations
- Contact managerial environmental representatives to offer assistance and address policy issues such as self-disclosure and training requirements.

## **Bibliography:**

1. Connor, Garth, An Investigation and Analysis of the Environmental Problems at Prisons, *National Enforcement Journal*, volume 18, number 4, May 2003
2. Fairchild, Samantha, Environmental Compliance, *Corrections Forum Magazine*, volume 11, Number 1, November/December 2002
3. Parker, Richard and Rea, Louis, Designing and Conducting Survey Research: A Comprehensive Guide, Jossey-Bas, San Francisco, 1997
4. Office of Enforcement and Compliance Assurance, Guide for Measuring Compliance Assistance Outcomes, United States Environmental Protection Agency, June 2002

## Appendix A: Survey Instrument

### Background Information:

1. How do you think correctional facilities perform on compliance with environmental regulations?(Please circle your answer)

good

fair

poor

don't know

2. Why do you think your sector is *struggling/ successful* with environmental compliance? \_\_\_\_\_

3. Do you think there is any characteristic about the prison sector that makes it harder to comply with environmental regulations that other sectors, like colleges/universities? \_\_\_\_\_

4. On a scale of 1-5, 1 being no effect and 5 being strongly effect, how does bad publicity effect your individual institution? (Please circle your answer)

(no effect) 1      2      3      4      5 (strong effect)

### Familiarity with Outreach Activities:

5. Are you aware of increased EPA outreach activity to prisons over the past 2 years? (Please circle your answer)

yes

no

don't know

Have you heard about EPA's activities focused on prisons through any of the activities listed below? (Please circle your answers)

6. EPA booth at prisons conference      yes      no

7. EPA presentation      yes      no

8. News release on enforcement against prisons      yes      no

9. Article in Corrections Forum magazine      yes      no

10. Discussions with others within your facility about EPA focus on prisons      yes      no

11. Discussions with others outside your facility about EPA focus on prisons      yes      no

12. other (specify)\_\_\_\_\_

**Virginia Self-Disclosure Letter (VA facilities only):**

13. Do you recall receiving a letter from EPA regarding self disclosure/ audit policy?  
yes (#14) no (#15)

14. Did the EPA letter provide enough understandable information on disclosing violations and the audit policy for you to consider this option?

yes somewhat no don't know

Explain:

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15. What could be done to encourage more facilities to self disclose? \_\_\_\_\_

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**Cognitive Effect of Outreach:**

Did any EPA outreach result in increased understanding about the following environmental requirements? (Please circle your answers)

16. Oil spill prevention requirements yes no

17. Hazardous waste handling and disposal requirements yes no

18. At least one other environmental requirements at your facility yes no

What other environmental requirements? \_\_\_\_\_

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**Information Dissemination:**

19. Did you share the information gained through this compliance outreach activity with others in your organization? (Please circle your answer)

\_\_\_\_\_ yes no plan to don't know

20. Who is responsible for sharing information about the environment/ facilities management/ occupational health and safety to your staff? \_\_\_\_\_

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**Substantive Effect of Outreach:**

Did any of the outreach mentioned previously result in changes in: (Please circle your answers)

21. self-inspections to determine compliance yes no planned

22. revised job descriptions for facility personnel	yes	no	planned
23. improved labeling of hazardous waste containers	yes	no	planned
24. improved record keeping	yes	no	planned
25. change in materials to reduce potential environmental impact	yes	no	planned
26. application for a state or EPA permit	yes	no	planned
27. development of oil spill prevention plan	yes	no	planned
28. training on handling hazardous waste	yes	no	planned
29. reductions in waste materials	yes	no	planned
30. other (specify) _____			

**Internet Application:**

31. Do you access the Internet as part of your job? (Please circle your answer)  
                     yes                      sometimes                      no (go to #36)

If yes, have you accessed the sites below? ( y=yes, n=no, p-planned, na-not aware of site) (Please circle your answer)

32. EPA Region III web site on prisons and correctional institutions <a href="http://www.epa.gov/reg3eej/compliance_assistance/prisons.htm">www.epa.gov/reg3eej/compliance_assistance/prisons.htm</a>	y	n	p	na
33. EPA national compliance assistance web site <a href="http://www.epa.gov/clearinghouse">www.epa.gov/clearinghouse</a>	y	n	p	na
34. General EPA site <a href="http://www.epa.gov">www.epa.gov</a>	y	n	p	na

35. Other \_\_\_\_\_

**Recommendations:**

36. How would you recommend that EPA improve their outreach to your sector? Explain: \_\_\_\_\_

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## **Appendix B: Survey Introduction**

### **ENVIRONMENTAL COMPLIANCE OUTREACH TO CORRECTIONAL FACILITIES**

My name is Caroline Harrover. I am a graduate student hired by the U.S. Environmental Protection Agency to examine their outreach to the correctional facility/ prison sector.

The purpose of this survey is to determine if the EPA's original outreach concerning environmental requirements and programs had any impact in your sector. Although my fellowship grant was paid for by the EPA, the EPA will not receive names of facilities who provided me information and they will not use the information to initiate inspections or enforcement against any facilities surveyed. EPA will use the information to measure their own performance and to help improve compliance assistance outreach to your sector. Would you have about 10 minutes to discuss your facility's environmental programs (Y/N)?

Examples of other such surveys can be found at [www.epa.gov/reg3ecej](http://www.epa.gov/reg3ecej) under Colleges and universities - survey and Audits - nitrate survey.



## Appendix C: Survey Coding Key

**Position** #1= SO      #2= Operations      **State** #1= VA      #2= WV  
                  #3= Warden    #4= Facilities      #3= DE      #4= MD      #5= PA  
                  #5= B&G      #6= Industry    #7= Case Manager    **Federal** #1= Yes      #0= No

### Background Information:

- How do you think prisons (cf) perform on compliance with environmental regulations?  
                  good #1      fair #2      poor #3      don't know #4
- Why do you think your sector is *struggling* #0 / *successful* #1 with environmental compliance?  
                  #1= DEQ help      #2= desire      #3= training  
                  #4= focus      #5= organization      #6= fear
- Do you think there is any characteristic about the prison sector that makes it harder to comply with environmental regulations that other sectors, like colleges/universities?      #0= none  
                  #1=training      #2= hierarchy      #3= money  
                  #4=industrial diversity      #5= staff      #6= bad press
- On a scale of 1-5, 1 being no effect and 5 being strongly effect, how does bad publicity effect your individual institution?  
                  (no effect) 1      2      3      4      5 (strong effect)

### Familiarity with Outreach Activities:

- Are you aware of increased EPA outreach activity to prisons over the past 2 years?  
                  yes #1      no #0      don't know #9

Have you heard about EPA's activities focused on prisons through any of the activities listed below?

- |   | #1  | #0 |
|---|-----|----|
| 6. EPA booth at prisons conference  | yes | no |
| 7. EPA presentation   | yes | no |
| 8. News release on enforcement against prisons                              | yes | no |
| 9. Article in Corrections Forum magazine                                    | yes | no |
| 10. Discussions with others within your facility about EPA focus on prisons | yes | no |

11. Discussions with others outside your facility about EPA focus on prisons                      yes      no

12. other (specify) #1= DEQ      #2= EPA      #3= OSHA      #4= other articles      #9= none

**Virginia Self-Disclosure Letter:**

13. Do you recall receiving a letter from EPA regarding self disclosure/ audit policy?  
yes (#14) #1                                      no (#15) #0

14. Did the EPA letter provide enough understandable information on disclosing violations and the audit policy for you to consider this option?  
yes #1                      somewhat #2                      no #3                      don't know #9

Explain:

#1= explained correctly      #2= govt lingo      #9 don't know

15. What could be done to encourage more facilities to self disclose?  
#1= chain of command      #2= no fines      #3 we are complying  
#4= no DEQ involvement      #9 don't know

**Cognitive Effect of Outreach:**

Did any of EPA outreach result in increased understanding about

16. Oil spill prevention requirements                                      #1                      #0  
yes                                      no

17. Hazardous waste handling and disposal requirements                                      yes                      no

18. At least one other environmental requirements at your facility                      yes                      no  
What other environmental requirements?

#1= pollution prevention      #2= water      #3= green products  
#4= OSHA      #5= air      #6= recycling      #0= none

**Information Dissemination:**

19. Did you share the information gained through this compliance outreach activity with others in your organization?  
\_\_\_\_\_ yes #1                      no #0                      plan to #2                      don't know #9

20. Who is responsible for sharing information about the environment/ facilities management/ occupational health and safety to your staff?  
#1= DOC      #2= EPA      #3= DEQ      #4= OSHA  
#5= CE      #6= SO      #7= other

**Substantive Effect of Outreach:**

Did any of the outreach mentioned previously result in changes in: (Mark y=yes, n=no, p-planned)

	#1	#0	#2
21. self-inspections to determine compliance	yes	no	planned
22. revised job descriptions for facility personnel	yes	no	planned
23. improved labeling of hazardous waste containers	yes	no	planned
24. improved record keeping	yes	no	planned
25. change in materials to reduce potential environmental impact	yes	no	planned
26. application for a state or EPA permit	yes	no	planned
27. development of oil spill prevention plan	yes	no	planned
28. training on handling hazardous waste	yes	no	planned
29. reductions in waste materials	yes	no	planned
30. other (specify) <span style="color: red;">variable?</span>			

#### Internet Application:

31. Do you access the Internet as part of your job?  
 yes #1                      sometimes #2                      no (go to #15) #0

If yes, did you access the sites or others below? ( y=yes, n=no, p-planned, na-not aware of site)

	#1	#0	#2	#9
32. EPA Region III web site on prisons and correctional institutions <a href="http://www.epa.gov/reg3ecej/compliance_assistance/prisons.htm">www.epa.gov/reg3ecej/compliance_assistance/prisons.htm</a>	y	n	p	na
33. EPA national compliance assistance web site <a href="http://www.epa.gov/clearinghouse">www.epa.gov/clearinghouse</a>	y	n	p	na
34. General EPA site <a href="http://www.epa.gov">www.epa.gov</a>	y	n	p	na

35. Other  
#1= OSHA                      #2= DOC                      #3= DEQ                      #9= none

#### Recommendations:

36. How would you recommend that EPA improve their outreach to your sector? Explain:  
#1= Newsletter                      #2= Web                      #3= Meeting                      #4= DOC  
#5= Inspections                      #6= Correctional Enterprises                      #7= other

## Appendix D: Coded Data

See attached data